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DIRECTORATE OF INTELLIGENCE

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MEMORANDUM FOR: See Distribution List

FROM: [redacted] 25X1
Director of Global Issues

SUBJECT: Golden Triangle Opium Production, 1985 [redacted] 25X1

1. The attached memorandum, Southeast Asia: Drought Cuts Opium Production, presents our assessment of Golden Triangle opium output in 1985. We estimate drought reduced opium production by over 20 percent despite an increase in poppy cultivation in the region. [redacted] 25X1

2. This memorandum was prepared by analysts from the Strategic Narcotics/Eurasia-Africa Branch, Office of Global Issues and from the Directorate Analytical Support Group. [redacted] 25X1

3. Questions and comments are welcome and may be addressed to the Chief, Terrorism/Narcotics Analysis Division, OGI, on [redacted] 25X1

[redacted] 25X1

Attachment:
Southeast Asia: Drought Cuts Opium Production [redacted] GI M 85-10273, 25X1
October 1985, [redacted]

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[redacted] [redacted] 25X1

[redacted] 25X1

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DIRECTORATE OF INTELLIGENCE

15 October 1985

Southeast Asia: Drought Cuts Opium Production [redacted] 25X1

Summary

Drought reduced opium production in the Golden Triangle of Southeast Asia for the 1984-85 crop season to an estimated 625 metric tons, a more than 20-percent decline from the 800 metric tons estimated for 1984. Burma, the region's dominant producer, accounted for about 490 tons, a drop of over 240 tons from last year. Thailand produced about 40 metric tons of opium, down slightly from 1984. In Laos, however, we estimate 1985 production at 95 tons, up from an estimated 25 tons in 1984. [redacted] 25X1

[redacted] 25X1

[redacted] [redacted] 25X1

This year's shortfall is unlikely to affect the amount of heroin entering the world market from the Golden Triangle because traffickers can draw on stocks or divert opium from domestic use. Although another bad year could deplete regional opium stockpiles, we expect production to rebound this coming crop season if weather is favorable. Piecemeal eradication operations in Burma and Thailand have not deterred growers from expanding the area under cultivation, and rising opium prices will stimulate cultivation. [redacted] 25X1

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This memorandum was prepared by [redacted] Strategic Narcotics/Eurasia-Africa Branch, Office of Global Issues, and [redacted] 25X1 Analytical Support Group. This analysis is based on 25X1 information available as of 1 October 1985. Comments and queries are welcome and may be addressed to the Chief, Terrorism/Narcotics Analysis Division [redacted]

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Background

The Golden Triangle in Southeast Asia--the tri-border area of Burma, Thailand, and Laos--has been a major supplier of heroin to the international market since the early 1970's (see Map). Although much of the region's opium is consumed locally, the Thailand-Burma border area is a major refining center for heroin bound for the United States, Europe, and other parts of Asia. The governments of Thailand and Burma have gradually intensified programs to destroy refineries, interdict narcotics caravans, and eradicate poppy fields. These efforts have occasionally disrupted the narcotics trade but have not yet significantly reduced opium cultivation.

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A drought this year has apparently accomplished what government enforcement programs could not. At the beginning of the 1984-85 season, all signs indicated another bumper opium crop comparable to last year's harvest of 800 metric tons. Trafficking groups were encouraging farmers to expand cultivation, and weather was excellent during planting in August and September 1984. A subsequent drought, however, ended any prospects for a large opium crop. Even though precipitation in the Golden Triangle is normally very low--from one-half inch to one inch per month--some rain is necessary as the poppy matures. This year no rain fell in many areas during the critical flowering period in December and January. the area most affected by the drought extends from the northern Shan State, near Lashio and Loimaw, to western Thailand. The resulting poor yields limited the opium harvest to some 625 tons, down more than 20 percent from 1984.

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Burma--Drought Damages Crop in Shan State

The drought severely damaged the Burmese opium crop. We estimate production in Burma this year at about 490 metric tons, down more than 240 metric tons from last year's crop (see Table 1, Appendix). The most intense cultivation was found in the Shan State east of the Salween River and north of Kengtung, historically the main source of opium for the heroin refineries at the northern end of the Thailand-Burma border. expanded poppy cultivation just east of Taunggyi in the Shan State. Intense cultivation in this area is surprising because the Burmese Government exercises control there and should be able to police it. In the Kachin State, cultivation was concentrated along the Chinese border, and the number of fields declined rapidly away from the border. Many growers in the Kachin State have located their fields near the border to have better access to Chinese migrant laborers who cross the border to plant and harvest the opium crop.

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We had good information from which to derive our estimate for Burma, but the drought greatly complicated the task.

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The production estimate was derived by calculating output from fields visible on imagery--productive fields--and adding to this amount the inferred output from fields we believe were too stressed to be visible. we calculate that 25X1
productive poppy fields totaled about 46,000 hectares. Collateral sources indicated only slightly below normal yields in most of the Kachin State and in the lower Shan State, 25X1
We estimated yields for these 25X1
productive areas to be between 9 and 10 kilograms per hectare, down slightly from last year. Using an average of 9.5 kilograms per hectare, production on the observed 46,000 hectares was about 440 metric tons. 25X1

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Burmese farmers were planting at least as much area in 25X1
poppy as last year, which we estimated at 71,000 hectares. We used the difference between this year's observed hectarage and last year's total hectarage--about 25,000 hectares--as a substitute for the size of the stressed areas. 25X1
in the drought stricken areas of the northern Shan 25X1
State, near Tangyan and Lashio, yields fell below one kilogram per hectare in some areas and were consistently below 4 kilograms per hectare. We chose a figure of 2 kilograms per hectare as representative of yields obtained from the severely stressed areas, which gives an inferred production of about 50 metric tons for these areas. 25X1

We judge that Burmese Government claims that it manually eradicated some 8,000 hectares in the Shan State are wildly exaggerated. In our opinion, the Burmese Government could not conscript the manpower necessary to carry out massive eradication operations in an area like the Shan State, where terrain is rough and insurgents are active. For this reason we have not subtracted the reported eradication figures from estimated hectarage. 25X1

Laos--Expanding Production

We estimate Laos produced about 95 metric tons on a cultivated area of 24,000 hectares, both figures much larger than those we have calculated in recent years. 25X1
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the hectarage estimate for the whole country was extrapolated from data for the western half of the growing area. This year, for the first time, we conducted a systematic sampling of the entire northern half of Laos, and the sample showed dense clusters of fields in Houaphan Province in the northeast. This area accounted for a significant share of Lao opium production until the mid-1960's, but past field reporting had suggested it was only a minor source after the Pathet Lao assumed military control there. We consider it unlikely that cultivation of this magnitude occurred in one year, and therefore we conclude that past estimates understated Lao cultivation.

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several other factors indicate expanded poppy cultivation in Laos over the past year:

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- the central government is pressuring the provinces to become financially self-supporting, and increased cultivation of opium for export is a quick and inexpensive way of obtaining additional revenue.

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- Rising prices for illicit opium at the Thailand-Burma border make it a more lucrative cash crop for Lao farmers.

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- Laos has become more popular as a site for heroin processing because of the ongoing conflict between major trafficking groups on the Thailand-Burma border. Refiners operating in Laos are likely to seek local supplies of opium.

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Cultivation was most intense in Houaphan Province but we also observed significant amounts of poppy in the traditional growing areas of Xiangkhouang, Louangphrabang, and Phongsali Provinces. The opium crop in these areas was hurt by drought,

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We based the production estimate on the observed fields, and therefore did not adjust for severely stressed fields that might not have been

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25X1 We lack planting intentions and a historical data base on growing areas in Laos, making any attempt to estimate stressed hectarage highly speculative. 25X1

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25X1 the Thai yield figure--4 kilograms per hectare. We 25X1 judge this a good approximation because terrain and cultivation practices are similar in both countries and 25X1 Lao and Thai farmers achieve similar 25X1 yields. the drought may have been 25X1 less severe in Laos than in Thailand, but we judge Lao farmers' yields were not sufficiently higher to change the estimate.

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Thailand--Cultivation Up

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25X1 Thai growers harvested just under 40 tons of 25X1 opium, down slightly from 1984.

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25X1 We judge the decline was due to the drought, 25X1 total cultivated area rose some 27 percent to about 9,650 hectares. Chiang Mai Province, the largest producer, registered a 32 percent increase in cultivated area, and cultivation in the other two leading opium producing provinces--Chiang Rai and Mae Hong Son--was also up sharply. Doi Chang Highland Unit in western Chiang Rai Province, the site of a joint Thai-West German agricultural development project, showed a 28 percent increase in area cultivated and accounted for over 11 percent of Thai production. All of the major producing highland units are well located to supply the nearby refineries along the Burma border. The increase in poppy cultivation represents more intense cultivation in traditional growing areas rather than expansion into new ones. Although poppy cultivation shifts somewhat among highland units, the general location has changed little over the last several years. 25X1

Thai poppy farmers have experienced a long-term downward trend in yields; yields have fallen 25X1 from 8 kilograms per hectare to 4 kilograms per hectare over the last five years. Government policies against slash-and-burn

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cultivation are causing farmers to overwork many of their existing fields, leading to soil depletion. Farmers try to compensate for the loss in soil fertility by increasing their use of fertilizers. This year, however, the increased application of fertilizer coupled with the lack of rain probably chemically damaged many fields and further reduced yields in some areas.

The area under opium cultivation in northern Thailand continues to expand despite government-sponsored crop substitution programs, education, and the threat of increased eradication. We judge at least three major reasons account for this:

- Hill-tribe people continue to migrate into Thailand from Burma and Laos. Opium is the traditional cash crop of these people, and its easy marketability makes it a low-risk cultivation choice in their new surroundings.

- Economic development projects in northern Thailand, by improving roads and providing agricultural inputs such as fertilizer and credit, have given farmers access to markets farther south and allowed them to shift production from subsistence crops to cash crops. Opium is still the most profitable of these cash crops.

- As competition among traffickers on the Thailand-Burma border intensifies, opium refiners are seeking to broaden their sources of supply. traffickers are encouraging expanded opium production and in many cases are forward contracting with producers before planting to guarantee supply.

Outlook

This year's reduced harvest is not likely to diminish the flow of opium products from the Golden Triangle to the international market (see Table 2). Traffickers can draw down stockpiles or divert opium from domestic use to maintain their share of the world heroin market. The small crop is likely to stimulate expanded poppy cultivation in the Golden Triangle next year. Stockpiles need replenishing, and prices for opium and refined narcotics are already rising along the Thailand-Burma border, Another season of bad weather, however, could create a serious shortage of opium in the region, exhaust stockpiles, and send prices skyrocketing as happened in 1980.

Both Thailand and Burma are planning intensified drug control programs which could damage the opium trade over the next

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few years. The Thai Army plans to expand manual eradication, [redacted] and will target those areas benefitting from crop substitution programs. The Army has set an ambitious goal of reducing opium production by 30 percent. This may cause unrest among hill-tribe farmers, but we judge the King has grown more receptive to stronger enforcement policies and is unlikely to curtail the program. More aggressive eradication may disrupt production next year. Over time farmers are likely to take countermeasures, such as intercropping poppy with other crops for concealment, planting in more remote sites, or seeking assistance from trafficking groups to combat enforcement. [redacted]

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In Burma, the government is planning an ambitious US funded aerial eradication campaign in the Shan State. For the program to be successful, the military must overcome the logistics problems of providing maintenance and security for several airplanes operating over insurgent-controlled terrain. Trafficking groups, several of which have the firepower to shoot down a low-flying aircraft, will fight back if the campaign cuts significantly into production, and the Burmese Government must be prepared to bear the losses likely to accompany such a military operation. If the government remains committed to the program over the next several years and expands it to cover areas of intense cultivation east of the Salween River, it may be able to do substantial damage to the Burmese opium sources closest to the refineries on the Thailand-Burma border. We expect traffickers to respond by encouraging production in more remote areas of the Shan and Kachin States. [redacted]

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Table 1 Estimate of 1985 Opium Production in Burma and Laos

	Burma	Laos
Potential Poppy Growing Area (1000 ha)	21,600	15,700
Area Imaged (1000 ha)	1,140	146
Productive Areas		
Number of Observed Fields	6,800	436
Estimated Number of Fields	90,000	47,000
Average Field Size (ha)	.51	.51
Estimated Hectares	46,000	24,000
Yield (kg/ha)	9-10	4
Output (metric tons)	440	94
Stressed Areas		
Estimated Hectarage	25,000	-
Yield (kg/ha)	2	-
Output (metric tons)	50 (mean)	-
Total Output (kg)	490	94

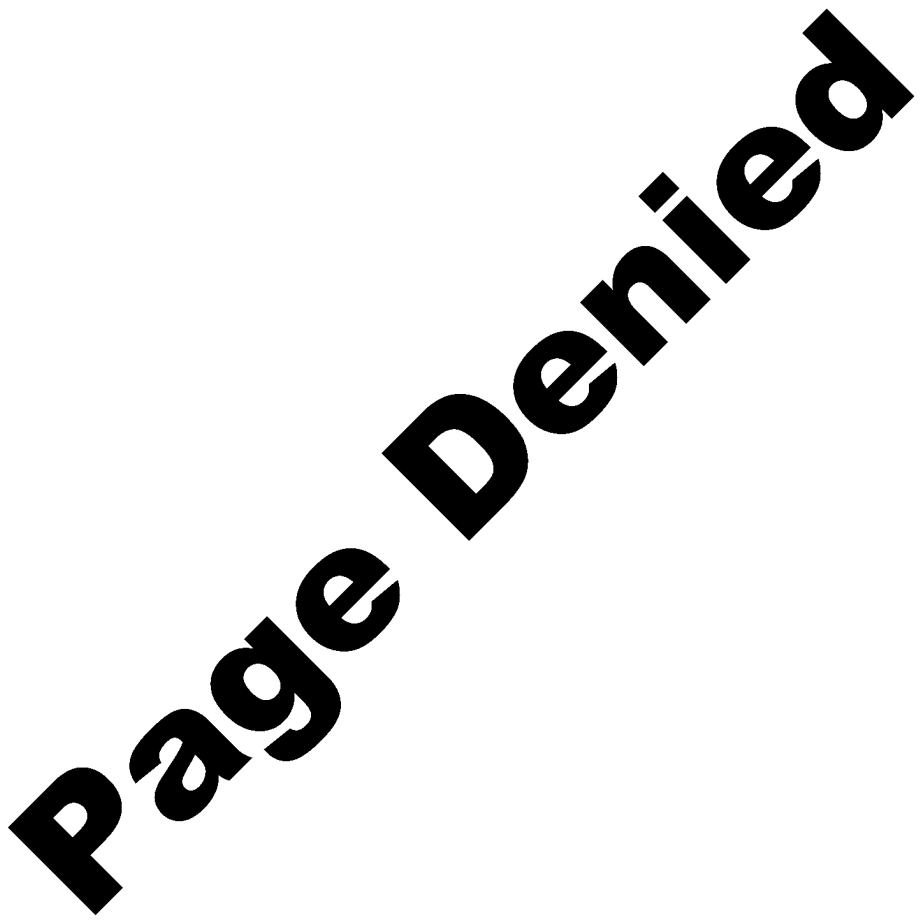
Table 2 Opium Production in Southeast Asia

COUNTRY	ESTIMATED NUMBER OF PRODUCTIVE FIELDS	AVERAGE FIELD SIZE	ESTIMATED AREA CULTIVATED	OPIUM YIELD	ESTIMATED PRODUCTION
	(1000 fields)	(ha)	(1000 ha)	(kg/ha)	(mt)
BURMA					
1983	106.0	0.52	55.1	10.0	551.0
1984	138.0	0.51	71.0	11.0	730.0
1985	90.1	0.51	71.0	9.5	490.0
LAOS					
1983	13.7	0.15	2.1	10.0	21.0
1984	7.3	0.51	3.7	6.5	24.0
1985	46.9	0.51	23.9	3.9	94.0
Thailand					
1983	7.1	0.52	3.7	10.0	37.0
1984	16.3	0.51	8.3	5.2	43.2
1985	-	-	9.6	3.9	38.1
SOUTHEAST ASIA					
1983	127.0	-	60.9	-	609.0
1984	161.6	0.51	83.0	-	797.0
1985	-	-	104.5	-	625.0

Notes: (1) The 1984 production figures for Burma reflects claimed Burmese eradication.

(2) [redacted] it is thought the 1983 Thailand estimate of the number of fields is too low, the yield/ha is too high, but the estimate of opium production is about right. 25X1

(3) The 1985 estimate of cultivated area in Burma includes productive fields (46,000 hectares) and stressed fields (25,000 hectares). The yield figure refers to the observed fields.



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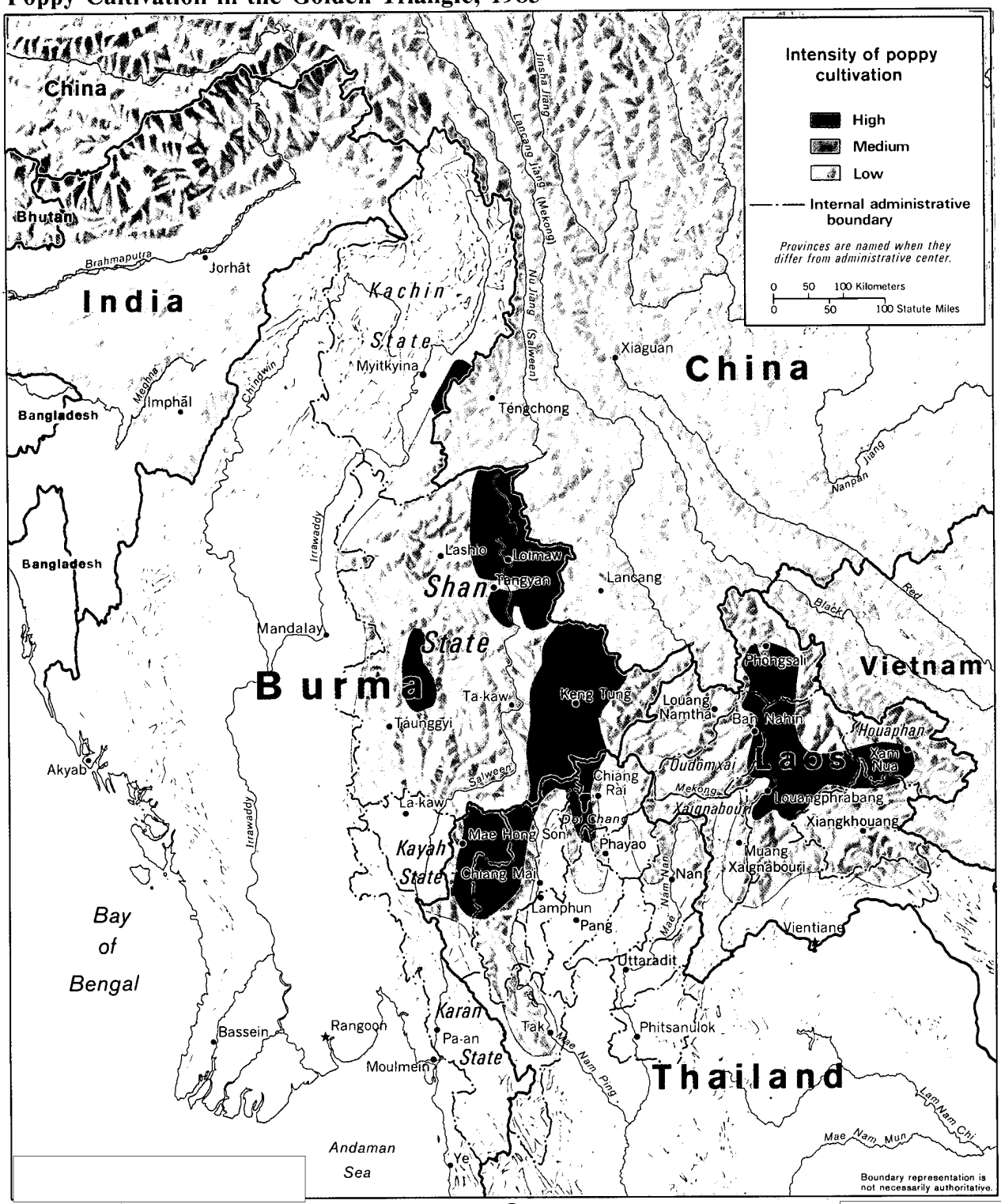
Poppy Cultivation in the Golden Triangle, 1985



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